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AUTHOR Manning, Maryann; And Others
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ABSTRACT

A study compared the writing development and ideas about writing of students in a whole language program with students in a skills-oriented program from the time they entered kindergarten to the end of the second grade. Subjects were 22 inner city students who completed second grade out of an original kindergarten cohort of 50 minority students who had been randomly divided into a whole language group and a skills-oriented group. Subjects were interviewed regarding their views about writing at the end of each year, had their spelling ability assessed at the end of first and second grade, and had their writing assessed in a variety of ways throughout the 3-year period. Results indicated that students in the whole language group: (1) were better writers; (2) viewed themselves as writers of real texts and had confidence in themselves as writers; and (3) outperformed the skills-oriented students on measures of spelling achievement. Findings suggest that whole language should be considered as an alternative to skills-oriented instruction in inner city schools. (Fourteen tables of data are included; 14 references are attached.) (RS)

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Writing Development of Inner City Primary Students: Comparative Effects of a Whole Language and a Skills-Oriented Program

Maryann Manning, Gary Manning, and Roberta Long

University of Alabama at Birmingham

Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans November, 1990

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Running head: WRITING DEVELOPMENT

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Writing Development of Inner City Primary Students: Comparative Effects of a Whole Language and a Skills-Oriented Program

Maryann Manning, Gary Manning, and Roberta Long

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In their report of the National Assessment of Educational Progress, Applebee, Langer, Jenkins, Mullis, and Foertsch (1990) state the following:

> At each grade level, Black and Hispanic students proficiency was significantly lower than that of White students, and males' average writing proficiency was lower than that of females. Students attending schools in advantaged urban communities tended to write better than their counterparts attending schools in disadvantaged urban communities. (p. 9)

Numerous studies (Anrig, 1985; Boykin, 1984; Comer, 1988; Forbes, 1985) concur with the report produced by the National Assessment of Educational Progress.

Much has been written about the reasons for the gap in literacy achievement between Black and White students. Many agree with Cardenas and First (1985) that schools with primarily low-income Black students usually have inadequate funding. Additionally, there has been little change in literacy instructional programs in these schools in spite of the low achievement.

A growing number of educators including Boykin (1984) are recommending that African-American students should be taught literacy through a holistic (whole

language) approach as opposed to a traditional skills-oriented approach. Whole language is described by Goodman, K., Smith, Meredith, and Goodman, Y. (1987, p. 6) as "curricula that keep language whole and in the context of its thoughtful use in real situations."

There are many descriptions of whole language classrooms and qualitative reports on the reading and writing of students in whole language classrooms. Although qualitative research techniques are most appropriate for assessing the development of students' literacy, standardized achievement tests continue to be used in most states and school districts throughout the nation (Kamii, 1990). Because standardized tests dominate literacy assessment, many school administrators and classroom teachers are reluctant to use whole language practices; they fear their students will do poorly on standardized measures. The purpose of this study was to compare the writing development and ideas about writing of students in a whole language program with students in a skills-oriented program from the time they entered kindergarten to the end of second grade.

Method

In the fall of 1986, 50 kindergarten students in an inner city, low socioeonomic school (nearly 100%

were on free lunch) in a large Southern city were randomly assigned to two classrooms. All of the students were minority, and were entering kindergarten for the first time. Data were collected on all 50 children in kindergarten; however, only 11 students remained in each group by the end of second grade. The data reported in this study are those collected on the remaining 22 students in the two groups. Five boys and six girls were in the skills-oriented group; four boys and seven girls were in the whole language group. There was less than one month difference in the average age in the two groups.

During the three years of kindergarten, first and second grade, one group was in a skills-oriented program; the other group experienced a whole language curriculum. The researchers made bi-weekly visits to the classrooms to verify the continuity of the two different literacy programs.

Assessment Procedures

Throughout the three-year period, from the beginning of kindergarten through the end of second grade, the children's writing development was assessed in a variety of ways. Students were interviewed regarding their views about writing at the end of each year. This spelling ability was assessed four times in

kindergarten, at the beginning and end of first grade, and at the end of second grade; spelling scores from a standardized spelling achievement test were obtained at the end of first and second grade. The writing vocabulary of each student was assessed at the end of first and second grade. Writing samples were collected during each year of the study and were evaluated both quantitatively and qualitatively.

Ideas about Writing

Near the end of each school year, the students in both groups were asked questions that revealed their ideas about writing. The questions in kindergarten and first grade were: What can you do as a writer? Why do people write? and What do you do when you come to a word you can't spell? The second graders were asked only only two questions: Why do people write? and What do you think a good writer needs to do in order to write well?

Spelling Level Development

The kindergarten students were asked to write words at two-month intervals; the first graders wrote at the beginning of the year and at the end of the year, and the second-grade students wrote at the end of the year. The words and sentence were dictated to each student individually. The following words and

sentence were dictated to each student individually: vacation, cement, ocean, ocean, taco, punishment, motion, karate, tomato, cat, cats, and The giraffe eats leaves. The words were selected, analyzed, and categorized into spelling levels. Spelling levels were based on earlier studies by the researchers and Kamii (Manning, Manning, Long, & Kamii, 1987; Kamii, Long, Manning, M., & Manning, G., 1990). The following is a description of the four spelling levels:

Level 0: Children draw pictures or scribble rather than make letters or symbol-like forms.

Level 1: Children write a string of letters for a word that has no set number of letters from one word to another. The string might run an entire page as a child spells a word.

Level 2: Children write a string of letters that usually consists of three to six letters for each word. The letters may be different for each word or the same letters might be rearranged from one word to another. (A variation of this level is Level 2X in which the child

writes the correct initial letter for a word, but the other letters reveal no letter-sound correspondence.)

Level 3: Children at this level--consonantal level--make letter-sound correspondence, mostly by consonants. For example, they usually write smt for cement.

Level 4: Children at this level--the alphabetic level--make their letter-sound correspondences by consonants and vowels. For instance, they might write vacashun for vacation or moshun for motion. These consistencies suggest the construction of a system approaching conventional spelling.

Agreement among the raters was obtained on each spelling paper. Ratings were completed by the three researchers working as a group.

Standardized Spelling Assessment

The spelling achievement of the first and second graders was determined by using the spelling portion of the state-mandated Stanford Achievement Test (1982). This test was administered in the spring of each year to all students in the first and second grade. The spelling scores were used to compare the proficiency of

the whole language (WL) students who had not been drilled weekly on specific spelling words with the skills-oriented (SO) students who had been drilled intensively and took weekly spelling tests.

Written Vocabulary

A modified version of a procedure developed by Susan E. Robinson (Clay, 1986) was used to determine written vocabulary of the first and second graders. Instead of 10 minutes as suggested by Robinson, students were individually asked to write all the words they could write during a five-minute period. If a student stopped writing, he/she was encouraged to continue to write and was given suggestions such as to write the names of family members. At the end of the five-minute period, the student was asked to read the words that had been written. Any word written in conventional or invented spelling that the student said correctly was counted as a word. The scores of the students in each group were compared at both grade levels.

Writing Sample Assessment

Writing samples for all students were collected and evaluated at the end of kindergarten, first, and second grade. In kindergarten, The Three Little Pigs was read to each student individually. Following the

reading, the student was asked to retell the story in writing. When the writing was finished, the student was asked to read the text. Notes concerning the writer's intentions and invented spelling were recorded to assist in the analysis. The writing samples of the kindergarten students were evaluated by determining each student's spelling level.

The first and second grade students wrote in the classroom. The students in both the WL and SO groups wrote on a topic of their choice. The stories were all first draft and were written during one 30-minute period. One of the researchers was present during the writing to assure that the directions and conditions were the same for both groups.

The writing samples were evaluated in several ways. The number of words and sentences in each composition was counted, and the average number of words per sentence was determined.

The writing samples were also analyzed to determine the writers' ability in the use of mechanics by using the following scale:

0 = None

1 = Little evidence

2 = Some evidence

3 = Good control

The ability to express thoughts in writing was evaluated according to criteria developed by the Avon Grove School District, West Grove, Pennsylvania ,(Nessel, Jones, & Dixon; 1989). The criteria included seven levels, but only the first five levels were needed in this study.

Level 1: Garble, absence of any reconstructable thought.

Level 2: One to three thoughts, possibly mixed with garble, some reconstruction necessary.

Level 3: At least three related thoughts requiring minimal reconstruction.

Level 4: Level 3 criteria, plus: a sense of relatedness with movement of thought through the writing, or a summary idea.

Level 5: Level 4 criteria, plus: at least one complex sentence, and development of one or more good ideas.

Results

The results are presented in three sections: Findings concerning students' ideas about writing, their spelling levels, and their writing ability.

Ideas about Writing

Distinct differences between the two groups were revealed at kindergarten, first, and second grade. Table 1 shows that in kindergarten 10 of the 11 WL students viewed themselves as writers of stories and books; 10 of the 11 SO students said they could write words or letters. On the question Why do people write?, nine of the SO students and only four of the WL students saw the purpose of writing as something that was useful in first grade and on homework. Five of the WL students viewed writing as a way to communicate information, but no SO student gave this response. When asked, What do you do when you come to a word you can't spell?, all but one of the WL students said they would spell the word the best way they could. In contrast, five of the SO students said that they could not spell.

Insert Table 1 about here

At the end of first grade, we asked the students, What can you do as a writer? All of the WL students said they could write stories, books, journals or poems. Ten SO students responded that they could write words, and one said she could write sentences.

On the question, Why do people write?, eight of the SO students gave responses that related to school success. In contrast, six of the WL students said people wrote stories and books and the remaining students' responses related to communicating ideas and enjoying writing. One student said, "To become famous as a writer."

When asked What do you do when you come to a word you can't spell?, 10 of the WL students gave responses that related to thinking about the word to be spelled while seven of the SO students said, "Sound it out.

Insert Table 2 about here

At the end of second grade, seven of the WL students said that people write to become an author. Six of the SO students said people write to learn. On the question about how writers improve their writing, nine of the WL students said, "practice," three of the SO students gave this response.

Insert Table 3 about here

Spelling Development

On Table 4, the results of the seven spelling level assessments of individual students are shown. A review of the levels shows only slight differences between the two groups at the end of kindergarten. Three WL students and one SO student were at the 2X level which indicates only initial letter-sound correspondence. The differences, however, are distinct at the end of first grade. Six of the WL students wrote at level 4, the alphabetic level; only one SO student had reached this level. At the end of second grade, nine of the WL students wrote at level 4; six of the SO students wrote at this level.

Insert Tables 4 and 5 about here

In assessing the spelling achievement of the first and second graders, the spelling test scores on the Stanford Achievement Test were compared using an analysis of variance procedure with repeated measures. Both groups showed a significant increase in spelling achievement between first and second grade, but the WL group outperformed the SO group over time (See Table 6).

Insert Table 6 about here

Writing Development

An analysis of variance procedure with repeated measures was also used to compare the first and second-grade scores from the Written Vocabulary Test. As can be seen in Table 7, the groups showed a significant increase in the number of words written, however, the WL group outperformed the SO group in gains made by the groups over time.

Insert Table 7 about here

An analysis of variance procedure with repeated measures was used to compare the first and second-grade scores on the number of words in the writing sample. As can be seen in Table 8, while there was not a significant change by the groups in the total number of words between first and second grade, there was a significant group effect.

Insert Table 8 about here

In assessing the number of sentences in the writing sample, the totals were compared using an analysis of variance procedure with repeated measures. The groups showed an increase in the number of sentences between first and second grade. The WL group outperformed the SO group over time (See Table 9).

Insert Table 9 about here

An analysis of variance procedure with repeated measures was also used to compare the average number of words per sentence. As can be seen in Table 10, both groups showed a significant increase in sentence length. However, the WL group outperformed the SO group in average number of words over time.

Insert Table 10 about here

In evaluating the writing samples for mechanics, the scores of the first and second graders were compared using an analysis of variance procedure with repeated measures. As can be seen in Table 11, there was no significant difference in the mechanics scores for the two groups over time and there was no

significant difference between the two groups. In addition, as can be noted in Tables 11 and 12, the lack of interaction effect for mechanics and content appears due to perfect parallelism for the groups across time.

Insert Table 11 about here

An analysis of variance procedure with repeated measures was also used to compare the first and second graders on the content of the writing samples. Both groups showed a significant increase in the quality of the expression of thought on both writing samples between first and second grade. However, the WL group was superior to the SO group (See Table 12).

Insert Table 12 about here

Tables 13 and 14 show the superiority of the WL first and second-grade students in their ability to express their thoughts in writing. The two tables also report students' productivity and mechanics in writing.

Insert Tables 13 and 14 about here

Discussion

The students in the WL group were better writers, viewed themselves as writers of real texts, and had confidence in themselves as writers. Since they had been randomly placed in the two groups, it is assumed that there were no differences in the abilities or backgrounds of the students at the beginning of kindergarten. The vast differences in their writing abilities and in their ideas about writing in favor of the WL students, therefore, are attributed to the language arts program.

In the WL group, students had been given the opportunity to engage in writing activities from the beginning of kindergarten. They selected their own topics for writing and engaged in numerous writing activities. The teachers encouraged students' writing and writing-like behaviors and accepted spelling approximations. A daily writing workshop was held, and the students often published individual and group books. Basal readers were not used in the WL program; students read self-selected trade books and participated in author studies.

Students in the SO program followed a traditional curriculum. They copied words and sentences from the board and had formal handwriting exercises. Skills

were taught separately through direct instruction including the use of worksheets and workbooks. The basal reader was used for reading instruction and students were in reading groups.

From the beginning of first grade, the students in the SO group studied words on spelling lists and were tested on those words. The WL students did not have lists, but were encouraged to put words in personal dictionaries to use in their writing. In second grade, they were encouraged to find the conventional spellings of words for published pieces. During modeled writing, the students engaged in social interaction about the spellings of words.

The superiority of the WL group on the written vocabulary is possibly due to the volume of writing students engaged in during the three-year period. The higher spelling levels are possibly due to the amount of reading and writing, the social interaction between the students about their spelling, and observation of and interaction with the teacher during modeled writing. Students in the WL group had more meaningful ideas about writing possibly because they wrote regularly on topics that mattered to them and read books they themselves selected.

The students in this study were all low-income minority students. The results indicate that whole language should be considered as an alternative to skills-oriented instruction in inner city schools. A limitation of the study is the size of the sample.

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Table 1

Ideas about Writing: Kindergarten

Type of Response	Whole	Skills
What can you do as a writer?		
Write letters		4
Write words	1	6
Write stories and books	10	
Write in cursive		1
Why do people write?		
To write in 1st grade and do homework	4	9
To communicate information	5	
To enjoy writing	2	1
Unrelated response		1
What do you do when you come to a word you can't spell?		
"I can't spell"		5
"Spell the best way I can"	10	
Write individual letters		3
Draw a picture	1	
Unrelated response		3

Table 2

Ideas about Writing: First Grade

Type of Response	Whole	Skills
What can you do as a writer?		
Write words		10
Write sentences		1
Write stories, books, journals, or poems	11	
Why do people write?		
To write name		2
For school success		8
To learn		1
To write stories and books	6	
To communicate ideas	2	
For enjoyment	2	
To become famous as a writer	1	
What do you do when you come to a word you can't spell?		
Sound it out		7
Ask someone else		4
Think about the word	10	
"Spell it the best I can"	1	

Table 3

Ideas about Writing: Second Grade

Type of Response	Whole	Skills
Why do people write?		
To learn	3	6
For school success		2
To communicate		1
For enjoyment		1
To learn to spell		1
To be an author	7	
Unrelated reponse	1	
What do you think a good writer needs to do do in order to write well?		
Practice	9	3
Think	1	
Stay calm	1	
Try		1
Write it over		2
Ask teacher		1
Listen		1
Copy out of a book		1
Read a book		1
Learn how to type		1

Table 4

Spelling Levels of the Whole Language Group: Kindergarten,* First,** and Second Grade***

Whole Language Group							
Student	Ka	Kb	Kc	Kd	1a	1b	2
1	1	1	2	2	2	2X	4
2	2	2	2	2	3	4	4
3	2	2	2X	2X	2X	4	4
4	0	2	2	2	2	2X	3
5	0	1	2	2	2	3	3
6	0	1	2	2	2	3	4
7	0	2	2	2X	2X	4	4
8	1	1	1	1	2	4	4
9	2	2	2	2	-	-	4
10	0	2	2	2	2	4	4
11	1	2X	2X	2x	3	4	4

*There were four spelling assessments in kindergarten: September, December, March, and May.

**There were two spelling assessments in first grade: September and May.

***There was only one end-of-year spelling assessment in second grade.

Table 5

Spelling Levels of the Skills-Oriented Group: Kindergarten,* First,** and Second Grade***

Skills-Oriented Group

Student	Ka	Kb	Kc	Kd	1a	1b	2
1	1	2	2	2	2X	2X	3
2	0	1	1	1	2X	2X	2X
3	1	1	1	2	2X	2X	3
4	1	1	2	2	2X	3	3
5	0	1	1	2	2X	3	4
6	1	1	2	2	2X	3	4
7	0	1	2	2	2	2	3
8	0	0	1	2	-	3	4
9	2	2	2X	2X	2X	4	4
10	1	1	2	2	2X	3	4
11	0	1	1	2	2X	3	4

*There were four spelling assessments in kindergarten: September, December, March, and May.

**There were two spelling assessments in first grade: September and May.

***There was only one end-of-year spelling assessment in second grade.

Table 6

Comparison of Stanford Spelling Scores

Source	df	SS	MS	F	p
Between Subjects					
Group	1	10066250.27	10066250.00	13812.00	.000
Subjects within Group	17	12389.20	728.78	17.03	.001
Within Subjects					
Time	1	53131.70	53131.70	135.91	.000
Group by Time	1	968.54	968.54	2.48	.134
Time by Subjects within Group	17	6645.78	390.93		

Table 7

Comparison of Written Vocabulary

Source	df	SS	MS	F	p
Between Subjects					
Group	1	1904.40	1904.40	16.62	.001
Subjects within Group	18	2063.00	114.61		
Within Subjects					
Time	1	562.50	562.50	15.03	.001
Group by Time	1	108.90	108.90	2.91	.105
Time by Subjects within Group	18	673.60	37.42		

Table 8

Comparison of Total Words

Source	df	SS	MS	F	p
Between Subjects					
Group	1	11168.20	11168.20	20.41	.000
Subjects within Groups	20	10943.09	547.15		
Within Subjects					
Time	1	680.20	680.20	2.71	.116
Group by Time	1	1298.20	1290.20	5.17	.034
Time by Subjects within Group	20	5025.09	251.25		

Table 9

Comparison of Total Number of Sentences

Source	df	SS	MS	F	p
Between Subjects					
Group	1	105.09	105.09	11.15	.003
Subjects within Group	20	188.55	9.43		
Within Subjects					
Time	1	7.36	7.36	.72	.406
Group by Time	1	61.45	61.45	6.02	.023
Time by Subjects within Group	20	204.18	10.21		

Table 10

Comparison of Average Words per Sentence

Source	df	SS	MS	F	p
Between Subjects					
Group	1	48.51	48.51	10.97	.003
Subjects within Group	20	88.46	4.42		
Within Subjects					
Time	1	.06	.06	.02	.900
Group by Time	1	1.24	1.24	.35	.563
Time by Subjects within Group	20	71.84	3.59		

Table 11

Comparison of Writing Mechanics

Source	df	SS	MS	F	p
Between Subjects					
Group	1	1.45	1.45	3.76	.067
Subjects within Group	20	7.73	0.39		
Within Subjects					
Time	1	.36	.36	1.57	.225
Group by Time	1	.00	.00	.00	
Time by Subjects within Group	20	4.64	0.23		

Table 12

Comparison of Expression of Thought on First and Second Grade Writing Samples

Source	df	SS	MS	F	p
Between Subjects					
Group	1	29.45	29.45	72.00	.000
Subjects within Group	20	8.18	0.41		
Within Subjects					
Time	1	4.45	4.45	10.43	.004
Group by Time	1	0.00	0.00	0.00	
Time by Subjects within Group	20	8.55	0.43		

Table 13

Writing Samples: Productivity, Mechanics, and Expression of Thought of the Whole Language Group in First and Second Grade

Student	TW*		TS**		WPS***		M****		E*****	
Grade	1	2	1	2	1	2	1	2	1	2
1	57	98	8	16	7.1	6.1	3	3	4	5
2	31	84	4	4	7.8	2.2	3	3	4	5
3	43	72	5	12	8.6	6.0	2	2	4	5
4	44	20	8	4	5.5	5.0	2	2	4	3
5	34	51	6	7	5.7	7.3	2	3	4	4
6	28	82	4	11	7.0	7.5	3	3	4	5
7	105	88	9	9	11.7	9.7	2	3	3	5
8	30	59	4	6	7.4	9.8	2	3	3	5
9	30	58	3	6	10.0	9.7	2	3	4	4
10	37	54	4	15	9.3	3.6	3	2	4	4
11	107	85	15	9	7.1	9.6	3	2	5	5

*Total number of words in the writing sample

**Total number of sentences in writing sample

***Average number of words per sentence

****Mechanics

*****Expression of Thought

Table 14

Writing Samples: Productivity, Mechanics, and Expression of Thought of the Skills-Oriented Group in First and Second Grade

Student	TW*		TS**		WPS***		M****		E*****	
Grade	1	2	1	2	1	2	1	2	1	2
1	54	36	11	3	4.9	12.0	2	2	2	3
2	28	19	6	3	4.7	6.3	2	2	2	3
3	31	8	7	1	4.4	8.0	3	2	3	2
4	30	29	6	5	5.0	5.8	1	1	2	3
5	15	36	4	4	3.8	9.0	2	2	2	4
6	21	29	5	4	4.2	7.2	2	2	2	3
7	27	47	3	10	9.0	4.7	2	3	3	3
8	25	22	4	3	6.3	7.3	2	3	2	3
9	31	27	6	5	5.2	5.4	3	3	3	4
10	36	17	8	3	4.5	5.7	2	3	2	3
11	17	12	2	2	8.5	6.0	2	2	2	1

*Total number of words in the writing sample

**Total number of sentences in the writing sample

***Average number of words per sentence

****Mechanics

*****Expression of thought